

REMARKS

Claims 1-8, 16, 17, 20, and 23 are pending in this application.

Applicant has amended claim 20, and has canceled claims 9-15, 18, 19, 21, 22, 24, and 25. These changes do not introduce any new matter.

Cancellation of Non-Elected Claims

In light of Applicant's election of claims 1-8, 16, 17, 20, and 23 for prosecution on the merits, Applicant has canceled non-elected claims 9-15, 18, 19, 21, 22, 24, and 25. Applicant reserves the right to pursue non-elected claims 9-15, 18, 19, 21, 22, 24, and 25 in one or more timely filed divisional applications.

Rejection Under 35 U.S.C. § 101

Applicant respectfully requests reconsideration of the rejection of claim 20 under 35 U.S.C. § 101 as being directed toward nonstatutory subject matter. Applicant has amended claim 20 to define a computer-readable storage medium having an image output control program stored thereon. Accordingly, Applicant submits that claim 20 now defines statutory subject matter under 35 U.S.C. § 101, and requests that the rejection of this claim thereunder be withdrawn.

Rejection under 35 U.S.C. § 103

Applicant respectfully requests reconsideration of the rejection of claims 1-8, 16, 17, 20, and 23 under 35 U.S.C. § 103(a) as being unpatentable over *Shimizu et al.* ("Shimizu") (US 2003/0112293 A1) in view of *Otsuki* (US 6,652,067 B2) and *Shimada et al.* ("Shimada") (US 6,293,643 B1). As will be explained in more detail below, the combination of *Shimizu* in view of *Otsuki* and *Shimada* would not have rendered the claimed subject matter obvious to one having ordinary skill in the art.

As defined in independent claim 1, the claimed subject matter involves an image output control system, which includes an image processing device and an image output

device. The image output device has the following features (with reference numbers (1) to (4) added for ease of reference):

- (1) a number data receiving module that receives the dot number data of the pixel group with respect to each type of dot;
- (2) a priority order specification module that specifies a priority order of individual pixels in the pixel group for dot creation;
- (3) a pixel position determination module that determines positions of dot-on pixels in the pixel group with respect to each type of dot, based on the dot number data of the pixel group with respect to each type of dot and the specified priority order; and
- (4) a dot formation module that creates the multiple different types of dots at the determined positions of the dot-on pixels.

In formulating the obviousness rejection, the Examiner acknowledges that the *Shimizu* reference does not disclose an image output device having the above-listed features (1) to (4). To remedy this deficiency, the Examiner relies on the *Shimada* and *Otsuki* references. According to the Examiner, the *Shimada* reference discloses the above-listed features (1), (3), and (4), and the *Otsuki* reference discloses the above-listed feature (2). Applicant respectfully traverses the Examiner's characterization of the *Shimada* and *Otsuki* references relative to the claimed subject matter.

Neither the *Shimada* reference nor the *Otsuki* reference discloses (or suggests) the concept of specifying a priority order of dot creation with respect to individual pixels making up a group (the above-listed feature (2)), and transferring the priority order (as takes place in the above-listed feature (3)).

Considering first the *Otsuki* reference, this reference discloses a printing apparatus configured to form different types of dots by masking a signal. As mentioned in the *Otsuki* reference, the mask pattern is variable for each pixel. Applicant has reviewed the portions of

the *Otsuki* reference relied upon by the Examiner, namely column 4, line 66 to column 5, line 25, Figure 10F, and column 7, lines 17-27, and did not find any reasonable support for the Examiner's assertion that the *Otsuki* reference discloses a priority order specification module that specifies a priority order of individual pixels in the pixel group for dot creation, as in the claimed subject matter.

Turning to the *Shimada* reference, this reference discloses a printer and a printing method that is intended to prevent banding from occurring. In particular, the *Shimada* reference discloses a printer that is capable of forming two or more different types of dots having substantially the same density per unit area, by changing the combination of the ink density and the dot diameter. *Shimada's* printer allows smaller dots and larger dots to coexist, with respect to an area of the same density, in the half tone area, so as to prevent banding from occurring.

In view of the foregoing, the combination of the *Shimada* and *Otsuki* references does not disclose an image output device having the claimed configuration that receives the dot number data, specifies a priority order of individual pixels, and determines positions of dot-on pixels in the pixel group with respect to each type of dot, based on the dot number data of the pixel group with respect to each type of dot and the specified priority order. Thus, for at least the foregoing reasons, the combination of *Shimizu* in view of *Shimada* and *Otsuki* would not have resulted in a system having each and every feature specified in claim 1. As such, the combination of *Shimizu* in view of *Shimada* and *Otsuki* fails to raise a *prima facie* case of obviousness against the subject matter defined in claim 1.

Independent claim 16 defines an image output control method that includes method operations that correspond to the functionality of the image output device defined in claim 1. As such, the arguments set forth above regarding claim 1 also apply to claim 16.

Independent claim 20 defines a computer-readable medium having an image output control program stored thereon. The image output control program includes program code for carrying out the functionality of the image output device defined in claim 1. As such, the arguments set forth above regarding claim 1 also apply to claim 20.

Independent claim 23 defines an image output control system. The system of claim 23 is similar to the system of claim 1, but is defined using slightly different claim language. For example, in claim 23, the image output device is defined without reference to “modules” (e.g., the “priority order specification module” of claim 1 is defined as a “priority order operator” in claim 23). As such, the arguments set forth above regarding claim 1 also apply to claim 23.

Accordingly, independent claims 1, 16, 20, and 23, as presented herein, are patentable under 35 U.S.C. § 103(a) over the combination of *Shimizu* in view of *Shimada* and *Otsuki*. Claims 2-8, each of which ultimately depends from claim 1, and claim 17, which depends from claim 16, are likewise patentable under 35 U.S.C. § 103(a) over the combination of *Shimizu* in view of *Shimada* and *Otsuki* for at least the same reasons set forth above regarding the applicable independent claim.

Conclusion

In view of the foregoing, Applicant respectfully requests reconsideration and reexamination of claims 1-8, 16, 17, 20, and 23, as presented herein, and submits that these claims are in condition for allowance. Accordingly, a notice of allowance is respectfully requested. In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 749-6902. If any additional

Application No. 10/811,078
Amendment dated January 23, 2008
Response to Office Action dated October 24, 2007

fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. MIPFP083).

Respectfully submitted,
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